1. INTRODUCTION

ABSTRACT:

There has been a sudden boom in the technical industry and an increase in the number of good startups. Keeping track of various appropriate job openings in top industry names has become increasingly troublesome. This leads to deadlines and hence important opportunities being missed. Through this research paper, the aim is to automate this process to eliminate this problem. The intention is to aggregate and recommend appropriate jobs to job seekers, especially in the engineering domain.

The entire process of accessing numerous company websites hoping to find a relevant job opening listed on their career portals is simplified. **Project overview**

This Project view provides an overview of the skill and job recommended for individuals interested in a career in any fields. It discusses the important role that any field plays in businesses and the various skills that are necessary for success in this field. It also outlines the different job opportunities available in any field and the different types of companies that employ any field professionals.

Purpose

Having lots of skills but wondering which job will best suit for you? Don't need to worry! we have come up with a skill recommender solution through which the fresher or the skilled person can login and find the jobs by using search option or they can directly interact with the chatbot and get their dream job.

To develop an end to end web application capable of displaying the current job openings based on the skillset of the users.The users and their information are stored in the Database. An alert is sent when there is an opening based on the user skillset. User will interact with the chatbot and can get the recommendations based on his skills.We can use job search API to get the current job openings in the market which will fetch the data directly from the webpage.

2. LITERATURE SURVEY

1. Students / Job seekers find their desired job based on their Skillset Description:

The Internet-based recruiting platforms become a primary recruitment channel in most companies. The recommender system technology aims to help users

in finding items that match their personnel interests. This article will present a survey of erecruiting process and existing recommendation approaches for building personalized recommender systems for candidates/job matching.

2. Integrating Intelligent CHATBOT for Job recommendation application

Description:

A Chatbot is a software application that replaces a live human agent to conduct a conversation via text or text to speech. In this system, we demonstrate a chatbot that uses Artificial Intelligence to produce dynamic responses to online client enquiries. This web-based platform provides a vast intelligent base that can help humans to solve problems. The Chatbot recognizes the user's context, which prompts an intended response. Its objective is to reduce human dependency in every organization and reduce the need for different systems for different processes.

3. A Study of LinkedIn as an Employment Tool for Job Seeker & Recruiter

Description:

LinkedIn has become one of the most known social networking portals in terms of global professional connections, networking, job postings, hiring and much more in relevance to employment opportunities. This research was an attempt to identify the utility of Linked in on selection and recruitment. Also, this study has taken the employers' and the prospective candidates for job and employees' perspective, including factors such as recruitment, selection, job opportunities, internal official communication on Linked-in, professional networking, ease of access, less expensive communication tool etc.

4. CLOUD STORAGE AND SHARING SERVICES

Description:

To create a web application that sends files from one email to another email using the SMTP protocol, which is handled in a server-based application. The main advantage of the project in

this paper is that it provides a safe, reliable, and excellent tool for sharing files in any format. Also, it has infinite scaling capabilities. With a bit of tweak in the code, it can be scaled to handle heavy file loads. The Cloud-based file sharing approach is proposed to provide the following services for external data confidentiality, secure data sharing within the group, protect data from unauthorized access of officials within the group and provide time and number of file access to users. Whenever information sharing among a bunch arise the file owner sends the user uploads the file on the application and then shares it using the send API.This creates a safe medium of sharing of files and user in control of the data in the whole process of sharing the files.

Problem Statement Definition

Job skills recommended application

Problem Statement:

Goal:

A job search has to be very intuitive for the students so that they can find job suiting their skills, position, industry, role and location by company name.

- The job Skills recommended application is an example of a search where documents are bulky because of the content in candidate resumes.
- The search provide over the candidate database is required to have huge set of fields to search.

Problem:

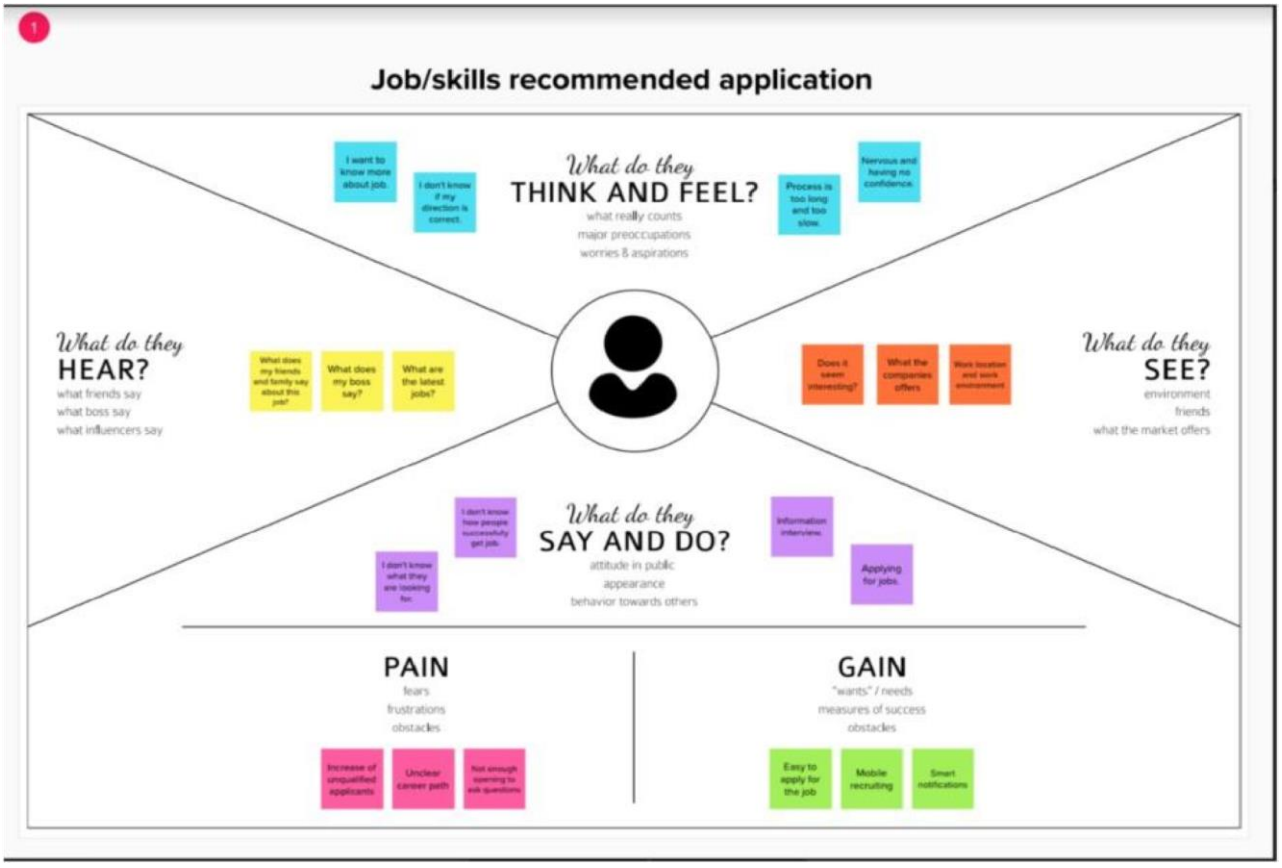
The current problem recruitment is done manually, most available jobs in Nigeria can only be applied at the agency can be done for which job seekershave to go to the agency check the available jobs at the agency.

Solution:

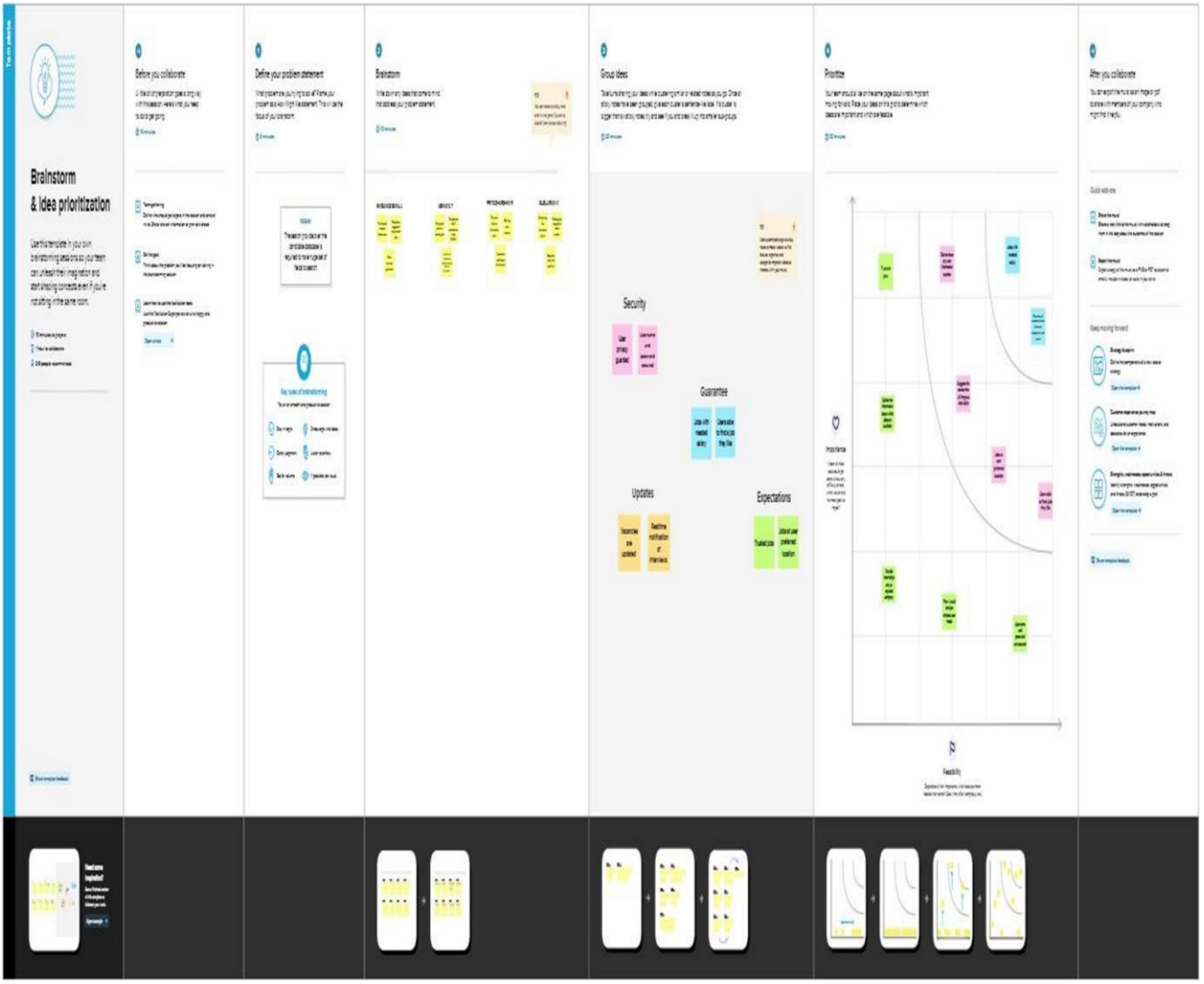
"The purpose of job oriented application to help both the job seekers and recruiters find the right organization or the employers."

3. IDEATION & PROPOSED SOLUTION

Empathy Map Canvas



Ideation and Brainstroming:



Proposed Solution

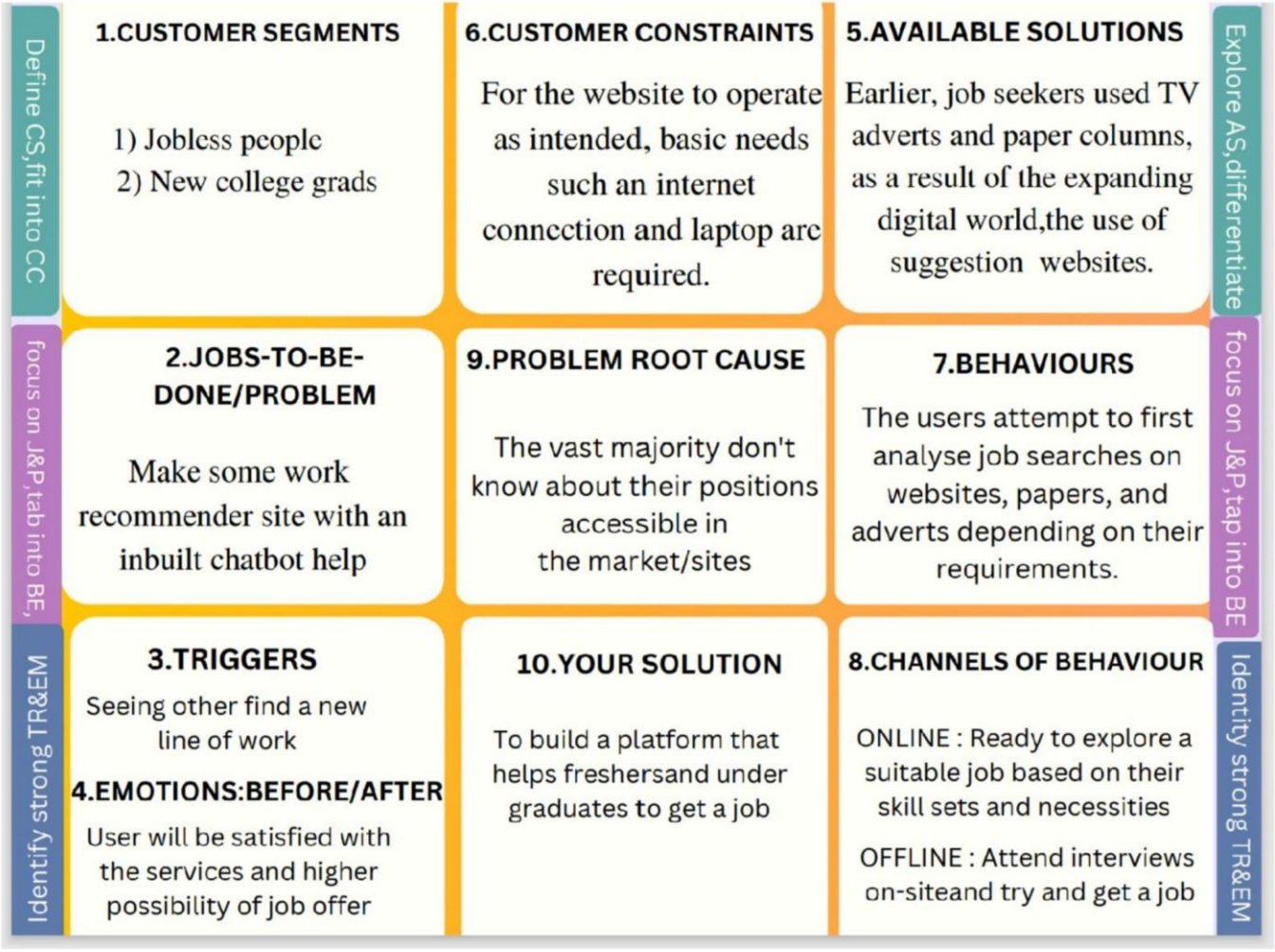
S. No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Having lots of skills but wondering which job will best suit you? Don't need to worry! We have come up with a skill recommender solution through which the fresher or the skilled person can log in and find the jobs by using the search option or they can directly interact with the chatbot and get their dream job. To develop an end-to-end web application capable of displaying the current job openings based on the user skillset. The user and their information are stored in the Database. An alert is sent when there is an opening based on the user skillset. Users will interact with the chatbot and can get the recommendations based on their skills. We can use a job search API to get the current job openings in the market which will fetch the data directly from the webpage.
2.	Idea / Solution description	The contributions of this work are threefold, we: i) made publicly available a new dataset formed by a set of job seekers profiles and a set of job vacancies collected from different job search engine sites ii) put forward the proposal of a framework for job recommendation based on professional skills of job seekers iii) carried out an evaluation to quantify recommendation abilities of two state-of-the art methods, considering different configurations, within the proposed framework. We thus present a general panorama of job recommendation task aiming to facilitate research and real-world application design regarding this important issue.
3.	Novelty / Uniqueness	The best position are suggested to any person according to her skills. While the position of known profiles are assumed

Proposed Solution :

		should be noted that there are usually multiple advisable positions corresponding to a set of skills. A recommendation systemshould return a set of most likely positions and all of them can be equally valid. The recommendation method we use is simply based on representing both positions and profiles as comparable vectors and seeking for each profile the positions with the most similar vectors.
4.	Social Impact / Customer Satisfaction	Students will be benefited as they will get to know which job suits them based on their skill set and therefore Lack of Unemployment can be reduced.
5.	Business Model (Revenue Model)	We can provide the application for job seekers in a subscription based and we can share the profiles with companies and generate the revenue by providing them best profiles.
6.	Scalability of the Solution	Data can be scaled up and scaled down according to number of current job openings available.

Problem Solution Fit

Template:



4. REQUIREMENT ANALYSIS

Function Requirement

Software Required:

Python, Flask, Docker

Non-Function Requirement

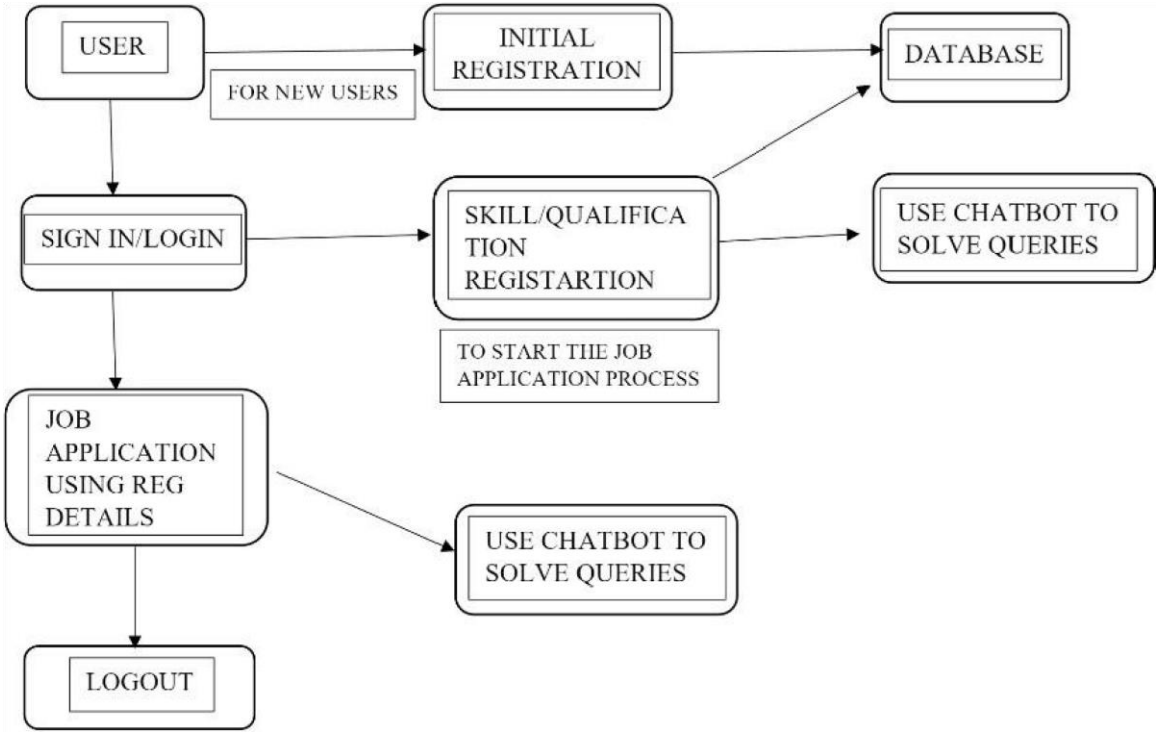
System Required:

8GB RAM, Intel Core i3, OS-Windows/Linux/MAC

,Laptop or Desktop

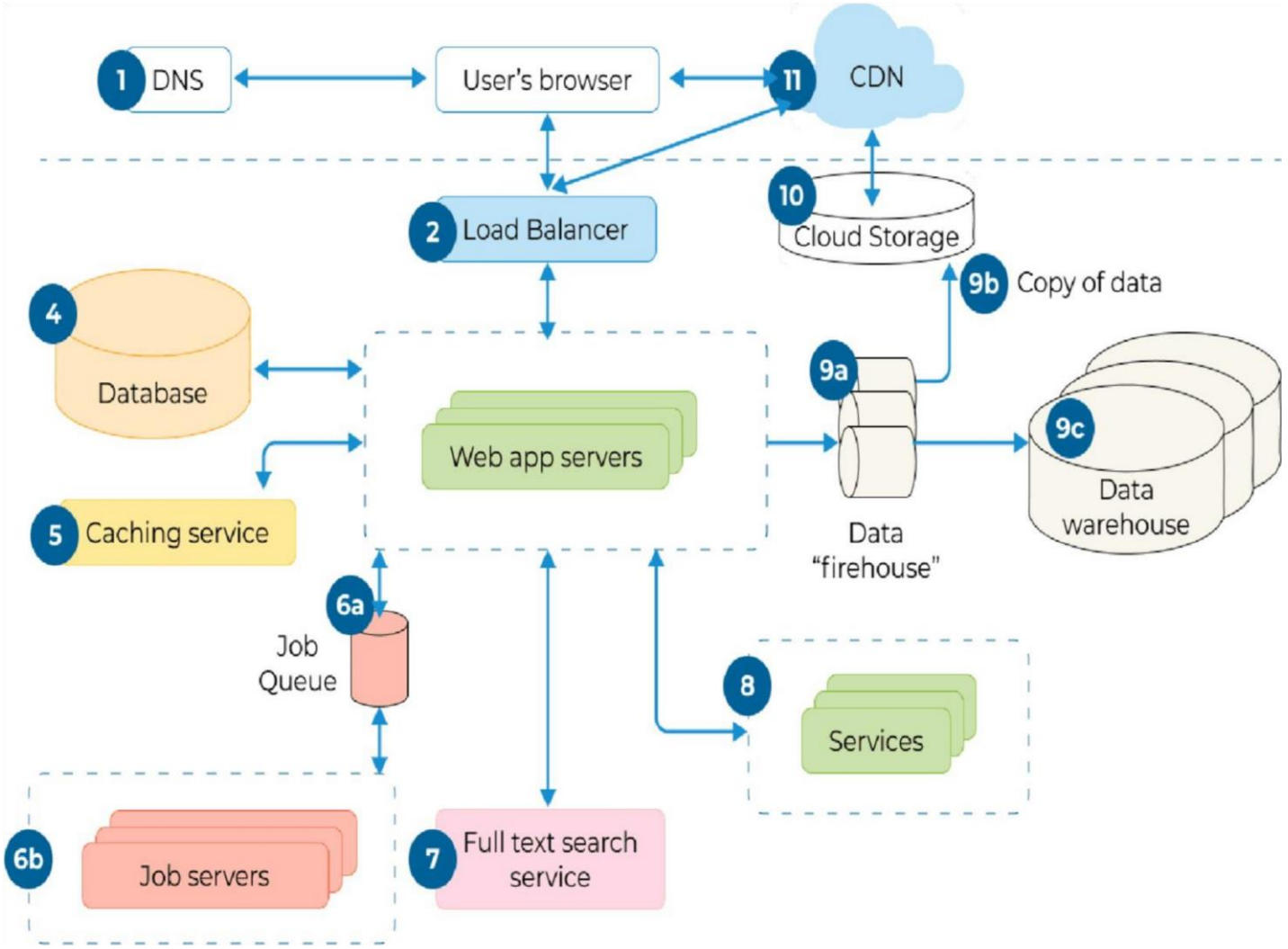
5. PROJECT DESIGN

Data Flow Diagrams



Solution & Technical Architecture

SOLUTION ARCHITECTURE



TECHNICAL ARCHITECTURE User stories:

User Stories :

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Customer (Mobile user)	Registration	USN-1	As a user, I can register for the application by entering my email, password, and confirming my password.	I can access my account / dashboard	High	Sprint-1
		USN-2	As a user, I will receive confirmation email once I have registered for the application	I can receive confirmation email & click confirm	High	Sprint-1
		USN-3	As a user, I can register for the application through Facebook	I can register & access the dashboard with Facebook Login	Low	Sprint-2
		USN-4	As a user, I can register for the application through Gmail	I can receive confirmation email & click confirm	Medium	Sprint-1
	Login	USN-5	As a user, I can log into the application by entering email & password	I can access my account / dashboard	High	Sprint-1
	Dashboard	USN-6	Create a model set that contains those models, then assign it to a role.	Assign that group to the appropriate roles on the Roles page	High	Sprint-1
Customer (Web user)	Identity-Aware	USN-7	Open, public access, User-authenticated access, Employee-restricted access.	Company public website. App running on the company intranet. App with access to customer private information.	High	Sprint-1
Customer Care Executive	Communication	USN-8	A customer care executive is a professional responsible for communicating the how's and why's regarding service expectations within a company.	For how to tackle customer queries.	Medium	Sprint-1
Administrator	Device management	USN-9	You can Delete/Disable/Enable devices in Azure Active Directory but you cannot Add/Remove Users in the directory.	Ease of use.	Medium	Sprint-1

6. PROJECT PLANNING & SCHEDULING

Sprint Planning & Estimation

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Priority	Acceptance criteria	Team Members
Sprint-1	UI Design	USN-1	As a user, I can see and experience an awesome user interface in the website	Medium	Better Impression about a website	Dhanasekar Ravi Jayanthi
Sprint-1	Registration	USN-2	As a user, I can register for the application by entering my email, password, and confirming my password.	High	I can access my account / dashboard	Dhanasekar Ravi Jayanthi
Sprint-1		USN-3	As a user, I will receive confirmation email once I have registered for the application	High	I can receive confirmation email & click confirm	Dhanasekar Ravi Jayanthi
Sprint-1		USN-4	As a user, I can register for the application through Facebook	Low	I can register & access the dashboard with Facebook Login	Dhanasekar Ravi Jayanthi
Sprint-1		USN-5	As a user, I can register for the application through Gmail	Medium	I can receive confirmation email & click confirm	Dhanasekar Ravi Jayanthi
Sprint-1	Login	USN-6	As a user, I can log into the application by entering email & password	High	I can access my account / dashboard	Dhanasekar Ravi Jayanthi

Sprint-1	Flask	USN-7	As a user, I can access the website in a second	High	I can access my account / dashboard	Dhanasekar Ravi Jayanthi

Sprint	**Functional Requirement (Epic)**	**User Story Number**	**User Story / Task**	**Priority**	**Acceptance criteria**	**Team Members**
Sprint-1	Dashboard	USN-8	As a user, If I Logged in correctly, I can view my dashboard and I can navigate to any pages which are already listed there.	High	I can access all the pages/ dashboard	Azariah john
			Submission Of Sprint-1			
Sprint-2	User Profile	USN-9	As a user, I can view and update my details	Medium	I can modify my details/data	Azariah john
Sprint-2	Database	USN-10	As a user, I can store my details and data in the website w	Medium	I can store my data	Azariah john
Sprint-2	Cloud Storage	USN-11	As a user, I can upload my photo, resume and much more in the website.	Medium	I can Upload my documents and details	Azariah john

Sprint-2	Chatbot	USN-12	As a user, I can ask the Chatbot about latest job openings, which will help me and show the recent job openings based on my profile	High	I can know the recent job openings	Azariah john
Sprint-2	Identity-Aware	USN-13	As a User, I can access my account by entering by correct login credentials. My user credentials is only displayed to me.	High	I can have my account safely	Azariah john
			Submission of Sprint-2			

Sprint	**Functional Requirement (Epic)**	**User Story Number**	**User Story / Task**	**Priority**	**Acceptance criteria**	**Team Members**
Sprint-3	Sendgrid service	USN-14	As a user, I can get a notification or mail about a job opening with the help of sendgrid service.	Medium	I can get a notification in a second.	Aravind prabhu
Sprint-3	Learning Resource	USN-15	As a user, I can learn the course and I will attain the skills which will be useful for developing my technical skills.	High	I can gain the knowledge and skills	Aravind prabhu
Sprint-3	Docker	USN-16	As a user, I can access the website in any device	High	I can access my account in any device	Aravind prabhu

Sprint-3	Kubernates	USN-17	As a user, I can access the website in any device	High	I can access my account in any device	Aravind prabhu
Sprint-3	Deployment in cloud	USN-18	As a user, I can access the website in any device	High	I can access my account in any device	Aravind prabhu
Sprint-3	Technical support	USN-19	As a user, I can get a customer care support from the website which will solve my queries.	Medium	I can tackle my problem & queries.	Aravind prabhu
			Submission of Sprint-3			
Sprint-4	Unit Testing	USN-15	As a user, I can access the website without any interruption	High	I can access the website without any interruption	Arunchandran
Sprint-4	Integration testing	USN-16	As a user, I can access the website without any interruption	High	I can access the website without any interruption	Arunchandran

Sprint	**Functional Requirement (Epic)**	**User Story Number**	**User Story / Task**	**Priority**	**Acceptance criteria**	**Team Members**
Sprint-4	System testing	USN-17	As a user, I can access the website without any interruption	High	I can access the website without any interruption	Arunchandran
Sprint-4	Correction	USN-18	As a user, I can access the website without any interruption	High	I can access the website without any interruption	Arunchandran

Sprint-4	Acceptance testing	USN-19	As a user, I can access the website without any interruption	High	I can access the website without any interruption	Arunchandran
			Submission of Sprint-4			

6.1 Sprint Delivery planning:

Project Tracker, Velocity & Burndown Chart:

Sprint	Total Story Points	Duration	Sprint Start Date	Sprint EndDate (Planned)	Story PointsCompleted (as onEnd Date)
Sprint-1	20	6 Days	24 Oct 2022	29 Oct 2022	20
Sprint-2	20	6 Days	31 Oct 2022	05 Nov 2022	20
Sprint-3	20	6 Days	07 Nov 2022	12 Nov 2022	20

Velocity:

Imagine we have a 10-day sprint duration, and the velocity of the team is 20 (points per sprint). Let's calculate the team's average velocity (AV) per iteration unit (story points per day)

6.2 Report from JIRA

$$AV \quad sprint\ duration \quad 20\ 2\ velocity \quad 10$$

7. CODING & SOLUTIONING

Feature 1

Registration page

```
<!DOCTYPE html>
<html>
<head>
<meta name="viewport" content="width=device-width, initial-scale=1">
<style> body{ font-family: Calibri,
Helvetica, sans-serif; background-color:
pink;
}
.container {
    padding: 50px;
  background-color: lightblue;
}

input[type=text], input[type=password], textarea {
  width: 100%; padding: 15px; margin: 5px 0 22px
  0; display: inline-block; border: none;
  background: #f1f1f1;
}
input[type=text]:focus, input[type=password]:focus
  { background-color: orange; outline: none;
} div
 {
            padding: 10px 0;
         } hr { border: 1px
solid #f1f1f1; margin-
bottom: 25px;
}
.registerbtn { background-
  color: #4CAF50; color:
  white; padding: 16px 20px;
  margin: 8px 0; border:
  none; cursor: pointer;
  width: 100%; opacity: 0.9;
```

```
}
.registerbtn:hover {
  opacity: 1;
}
</style>
</head>
<body>
<form action="file:///D:/Skill%20Job%20Recommender/login.html?username=admin&password=PSW">
  <div class="container">
  <center> <h1> Student Registeration Form</h1> </center>
  <hr>
  <label> Firstname </label>
<input type="text" name="firstname" placeholder= "Firstname" size="15" required />
<label> Middlename: </label>
<input type="text" name="middlename" placeholder="Middlename" size="15" required />
<label> Lastname: </label>
<input type="text" name="lastname" placeholder="Lastname" size="15"required />
<div>
<label>
Course :
</label>

<select>
<option value="Course">Course</option>
<option value="BCA">BCA</option>
<option value="BBA">BBA</option>
<option value="B.Tech\B.E">B.Tech/B.E</option>
<option value="MBA">MBA</option>
<option value="MCA">MCA</option>
<option value="M.Tech">M.Tech</option>
</select>
</div>
<div>
<label>
Gender :
</label><br>
<input type="radio" value="Male" name="gender" checked > Male
<input type="radio" value="Female" name="gender"> Female
<input type="radio" value="Other" name="gender"> Other

</div>
<label>
Phone :
</label>
<input type="text" name="country code" placeholder="Country Code" value="+91" size="2"/>
<input type="text" name="phone" placeholder="phone no." size="10"/ required> Current
Address :
<textarea cols="80" rows="5" placeholder="Current Address" value="address" required>
</textarea>
 <label for="email"><b>Email</b></label>
 <input type="text" placeholder="Enter Email" name="email" required>

    <label for="psw"><b>Password</b></label>
    <input type="password" placeholder="Enter Password" name="psw" required>

    <label for="psw-repeat"><b>Re-type Password</b></label>
    <input type="password" placeholder="Retype Password" name="psw-repeat" required>
    <button type="submit" class="registerbtn">Register</button>
</form>
```

```
</body>
</html>
```

Login.html

```
<!DOCTYPE html>
<html>
<head>
<meta name="viewport" content="width=device-width, initial-scale=1">
<title> Login Page </title>
<style>
Body { font-family: Calibri, Helvetica, sans-serif;
  background-color: pink;
} button { background-color: #4CAF50; width:
100%;
        color: orange; padding: 15px;
        margin: 10px 0px; border: none;
        cursor: pointer;
         } form { border: 3px solid #f1f1f1;
    } input[type=text], input[type=password] {
        width: 100%; margin: 8px 0; padding:
        12px 20px; display: inline-block;
        border: 2px solid green; box-sizing:
        border-box;
    } button:hover { opacity:
 0.7;
    }
  .cancelbtn { width: auto; padding:
    10px 18px; margin: 10px 5px; }


 .container { padding: 25px;
        background-color: lightblue; }
</style>
</head> <body>
    <center> <h1> Student Login Form </h1> </center> <form>
        <div class="container">
            <label>Username : </label>
            <input type="text" placeholder="Enter Username" name="username" required>
            <label>Password : </label>
            <input type="password" placeholder="Enter Password" name="password" required>
            <button type="submit">Login</button>
            <input type="checkbox" checked="checked"> Remember me
            <button type="button" class="cancelbtn"> Cancel</button> Forgot <a
            href="#"> password? </a>
        </div>
```

```
    </form>
</body>
</html>
```

Feature 2

```
import { useToast } from "@chakra-ui/react"; import
React, { useContext } from "react"; import { Link,
useNavigate } from "react-router-dom"; import
{ AppContext } from "../context/AppContext";


const Navbar = () => {
                const navigate = useNavigate();

                const toast = useToast();

                const { user, setUser, setSkills } = useContext(AppContext);

                const logout = () => {
                  setUser(null);
```

```
                setSkills([]);

                toast({
                  title: "Logged out
successfully!", status: "info",
duration: 3000, isClosable: true,
variant: "left-accent", position:
"top",
                });

                localStorage.removeItem("user");

                navigate("/");
              };

              return (
                <div className="navbar bg-base-100 border-b-2">
                  <div className="flex-1">
```

```
<Link className="btn btn-ghost normal-case
 text-xl" to={user ? "/dashboard" : "/"}

                >

                  F-ing Jobs

                </Link>

               </div>

               {user && (

                <div className="flex-none gap-2">

                  <div className="dropdown dropdown-end">

        <label tabIndex={0} className="btn btn-ghost btn-circle avatar ">

          <div className="w-10 rounded-full ring ring-opacity-50 ring-purple-
700">

          <img src="https://placeimg.com/80/80/people" /> </div>

                  </label>

        <ul tabIndex={0}

          className="m

          t-3 p-2 shadow

          menu menu-

          compact
```

```
            dropdown-
            content
bg-base-100 rounded-box w-52"
                        >
                          <li>
            <a className="justify-between"
              onClick={() => navigate("/profile")}
                          >
                            Profile
            </a> </li>
                        <li>
            <a onClick={logout}>Logout</a> </li>
                        </ul>
                       </div>
                      </div>
                    )}
                  </div>
                );
```

};

export default Navbar;

CHATBOT :

Chatbot has been implemented to provide assistance .

```
window.watsonAssistantC hatOptions = { integrationID: "d73273d3-3f44- 430484ee-8fd243016d1d", // The ID of this integration.
region: "jp-tok",
// The region your integration is hosted in.
serviceInstanceID: "81229104-ee6b-46daac1c-67ede110663a", // The ID of your service instance. onLoad: function(instance) { instance.render(); }
};
setTimeout(function(){ const t=document.createElement('script');

t.src="https://webchat.global.assistant.watson.app domain. cloud/versions/" +
(window.watsonAssistantChatOptions.clientVersion || 'latest') +
"/WatsonAssistantChatEntry.js";
document.head.appendChild(t);
});
```

Database Schema(if Applicable) :

```
# using SendGrid's Python Library
# https://github.com/sendgrid/sendgrid-python
import os from sendgrid import
SendGridAPIClient from sendgrid.helpers.mail
import Mail

# from_address we pass to our Mail object, edit with your name FROM_EMAIL
= 'Your_Name@SendGridTest.com'



def SendEmail(to_email):
                """ Send an email to the provided email addresses


                :param to_email = email to be sent to
                :returns API response code
                :raises Exception e: raises an exception
   """ message = Mail( from_email=FROM_EMAIL,
   to_emails=to_email, subject='A Test from
```

```
    SendGrid!', html_content='<strong>Hello there
    from SendGrid your URL is: ' +
        '<a href=''https://github.com/cyberjive''>right here!</a></strong>') try:
                        sg =
        SendGridAPIClient(os.environ.get('SENDGRID_API_KEY'))
        response = sg.send(message) code, body, headers =
        response.status_code, response.body,
response.headers print(f"Response Code:
        {code} ") print(f"Response Body: {body}
        ") print(f"Response Headers: {headers}
        ") print("Message Sent!")
                    except Exception as e:
        print("Error: {0}".format(e)) return
    str(response.status_code)


if_name____== " __main_":
                        SendEmail(to_email=input("Email address to send to? "))
```

8. TESTING

8.2 User Acceptance Testing

➢ **Purpose of Document**

The purpose of this document is to briefly explain the test coverage and open issues of the Skills/Job Recommender.

Application project at the time of the release to User Acceptance Testing (UAT).

➢ **Defect Analysis**

This report shows the number of resolved or closed bugs at each severity level, and how they were resolved.

Section	Total Cases	Not Tested
Print Engine	7	0
Client Application	5	0
Security	3	0
Outsource Shipping	7	0

Resolution	Severity 1	Severity 2	Severity 3	Severity 4
By Design	3	2	1	1
Duplicate	1	0	2	0
External	2	0	0	1
Fixed	5	2	5	7
Not Reproduced	0	0	1	0
Skipped	0	0	0	1
Won't Fix	0	5	1	1
Totals	11	9	10	11

1. Test Case Analysis

This report shows the number of test cases that have passed, failed, and untested

Exception Reporting	6	0	0	6
Final Report Output	3	0	0	3
Version Control	2	0	0	2

9. RESULTS

The project has been completed as we expected.We ensured that Database was designed and well connected to our project.The Expected results were gotten.

10. ADVANTAGES & DISADVANTAGES

ADVANTAGES:

- ➢ Person who looks for a job can easily find a suitable job based on their skill set.
- ➢ Person can check their eligibility by attending eligibility test.
- ➢ Most of the Recruiters find the suitable person based on the scores they have gotten in the eligibility.

DISADVANTAGES

- ➢Person Job May get technical difficulty while taking the eligibility

➢ Job seeker may have trouble to contact recruiters directly.

11. CONCLUSION

The application has been developed to make job search easier .The application that we have developed is user friendly .User can find a job based on their skillset in the short period of time. The jobseeker certainly get benefit by using this application. In the addition,Chatbot Has been implemented with the help of IBM whatson . The chatbot helps jobseeker and organization when they experience the difficulties.

12. FUTURE SCOPE

The linked in the wellknown application to find a job and stay connected with professional and organization.The job seekers and organization use linked in to find a job.In the future , There are lots of possibilities to enhance our project similar to linkedin.

13. APPENDIX

SOURCE CODE

init_.py

```
from dotenv import dotenv_values
from flask
import Flask from flask_cors
import CORS import ibm_db
```

```
        # Get the environment
variables config =
dotenv_values("backend/.env")

        #
Connect to db try:
            # conn = 'dd'
   conn = ibm_db.pconnect(
       f"DATABASE={config['DB2_DATABASE']};HOSTNAME={config['DB2_HOSTNAME'
                                                                    ]};
        PORT={config['DB2_PORT']};SECURITY=SSL; SSLServerCertificate=backend/
                DigiCertGlobalRootCA.crt;UID={config['DB2_USERNAME']};
PWD={config['DB2_PASSWORD']}", '', '') print("Connected to IBM_DB2
successfully!!") print(conn)
        except:
            print("Failed to connect to Database!")

        def create_app():
            # Tell flask to use the build directory of react to serve static
   content app = Flask(__name_, static_folder='../build',
   static_url_path='/')

            CORS(app)

            # Set the secret key for flask
            app.config['SECRET_KEY'] = config['APP_SECRET']
```

```
                # Import and register
auth_router from .auth_router import
auth
                app.register_blueprint(auth, url_prefix='/api/auth')
                from .files_router import files
                app.register_blueprint(files, url_prefix='/api/files')

                from .user_router import user
                app.register_blueprint(user, url_prefix='/api/user')

                # In production serve the index.html page at root

                @app.r
oute("/") def
home():
   return app.send_static_file('index.html') return

app
```

auth_middleware.py

```
            from functools import
wraps import jwt
```

```
        from flask import
request from backend import
conn, config import ibm_db

        # Middleware function that checks for JWT token in header
        # All routes that have the @token_required decorator will be protected


def token_required(f): @wraps(f)
   def decorated(*args, **kwargs):
                token = None if "Authorization" in
      request.headers: token =
      request.headers["Authorization"].split(" ")[1]
      if not token: return
        {
                    "error": "Unauthorized"
        }, 401 try:
                # Get the user's email from the
        decoded token data = jwt.decode(
                    token, config["APP_SECRET"], algorithms=["HS256"])

                # Retreive user's info from the database
                sql = f"select * from users where email='{data['email']}'"
                stmt = ibm_db.prepare(conn, sql)
        ibm_db.execute(stmt)
```

```
                current_user = ibm_db.fetch_assoc(stmt)

                # If user does not exist
  throw error. if current_user is None:
                    return {
                       "error": "Unauthorized"
    }, 401 except
Exception as e:
                return {
                   "error": str(e)
                }, 500

              # Pass the authorized user in function args.
              return f(current_user, *args, **kwargs)

            return decorated
```

auth_router.py

```
            from flask import Blueprint,
  jsonify, request from backend import conn,
  config import bcrypt import jwt import
  ibm_db auth = Blueprint("auth",__name_)

                LOGIN_FEILDS = ('email', 'password')
```

```
SIGNUP_FEILDS = ('name', 'email', 'phone_number', 'password')


@auth.route("/login",
methods=['POST']) def login_user():
    # Check if all the required feild
  are present for feild in LOGIN_FEILDS:
    if not (feild in request.json):
      return jsonify({"error": f"All feilds are required!"}), 409
    email =
  request.json['email']  password  =
  request.json['password']
    sql = f"select * from users where
  email='{email}'" stmt = ibm_db.prepare(conn, sql)
  ibm_db.execute(stmt)  user  =
  ibm_db.fetch_assoc(stmt) if not user:
    return jsonify({"error": "Invalid credentials!"}), 401
  if bcrypt.checkpw(password.encode('utf-8'),
    user["PASSWORD"].encode('utf-8')): token =
    jwt.encode( {"email": email},
    config["APP_SECRET"],
      algorithm="HS256"
    )
    return jsonify({"name": user["NAME"], "email": email, "phone_number":
user["PHONE_NUMBER"], "token": token}), 200 else:
    return jsonify({"error": "Invalid credentials!"}), 401
```

```
@auth.route("/signup",
methods=['POST']) def register_user():
    # Check if all the required feild
  are present for feild in SIGNUP_FEILDS:
      if not (feild in request.json):
        return jsonify({"error": f"All feilds are required!"}), 409

    email = request.json['email']
    phone_number = request.json['phone_number']
    name =
  request.json['name']  password =
  request.json['password']

    # Sql stmt to check if email/number is already in use
  sql = f"select * from users where email='{email}' or
phone_number='{phone_number}'" stmt = ibm_db.prepare(conn, sql)
ibm_db.execute(stmt) user = ibm_db.fetch_assoc(stmt)
    if user:
      return jsonify({"error": f"Email/Phone number is alread in use!"}), 409

    # If user does not exist, then
  create account hashed_password =
  bcrypt.hashpw( password.encode('utf-8'),
  bcrypt.gensalt())
  sql = f"insert into users(name,email,phone_number,password)
values('{name}','{email}','{phone_number}',?)" stmt = ibm_db.prepare(conn, sql)
```

```
                    ibm_db.bind_param(stmt, 1,
    hashed_password) ibm_db.execute(stmt) token
    = jwt.encode( {"email": email},
    config["APP_SECRET"],
                        algorithm="HS256"
                    )
    return jsonify({"name": name, "email": email, "phone_number": phone_number, "token":
token}), 200
```

files_router.py

```
                from flask import Blueprint
                from        backend.auth_middleware        import
token_required import ibm_boto3
                from   ibm_botocore.client   import   Config,
ClientError from backend import config

cos = ibm_boto3.resource("s3", ibm_api_key_id=config["COS_API_KEY_ID"],
                ibm_service_instance_id=config["COS_INSTANCE_CRN"],
                        config=Config(signature_version="oauth"),
                          endpoint_url=config["COS_ENDPOINT"]
                        )
files = Blueprint("files",___name_)

def multi_part_upload(bucket_name, item_name, file_path): try:
                    print("Starting file transfer for {0} to bucket: {1}\n".format(
                       item_name, bucket_name))
```

```
                # set 5 MB chunks
                part_size = 1024 * 1024 * 5

                # set threadhold to 15 MB
  file_threshold = 1024 * 1024 * 15

                # set the transfer threshold and chunk size
  transfer_config = ibm_boto3.s3.transfer.TransferConfig( multipart_threshold=file_threshold,
                    multipart_chunksize=part_size
                )

                # the upload_fileobj method will automatically execute a multi-part upload
                # in 5 MB chunks for all files
  over 15 MB with open(file_path, "rb") as
  file_data:
                    cos.Object(bucket_name, item_name).upload_fileobj(
                     Fileobj=file_data,
                     Config=transfer_config
                    )

                print("Transfer for {0} Complete!\n".format(item_name))
except ClientError as be: print("CLIENT
  ERROR: {0}\n".format(be))
            except Exception as e:
                print("Unable to complete multi-part upload: {0}".format(e))
```

```
@files.route('/avatar', methods=["POST"])
@token_required def
upload_profile_photo(current_user):
    return "hello"
```

user_router.py

```
from flask import Blueprint, jsonify, request
from backend import conn
from backend.auth_middleware import
token_required import ibm_db

user = Blueprint("user",___name_)

@user.route("/skills", methods=["GET", "POST", "DELETE"])
@token_required
def manage_skills(current_user):
# Get user_id of current user
    user_id = current_user['USER_ID']

    # Handle GET
request if request.method
== 'GET': skills = []
```

```
                sql = f"select name from skills where
  user_id={user_id}" stmt = ibm_db.prepare(conn, sql)
  ibm_db.execute(stmt) dict = ibm_db.fetch_assoc(stmt)

                # Iterate over all the results and append skills to
  the array while dict != False:
    skills.append(dict['NAME']) dict =
  ibm_db.fetch_assoc(stmt)    return
  jsonify({"skills": skills}), 200

              # Get the skills from
the request if not ('skills' in
request.json):
  return jsonify({"error": f"All feilds are required!"}), 409 skills
= request.json['skills']

              # If no skills are provided then return
empty array if skills == []:
                return jsonify({"skills": []}), 200

              # Handle POST
request if request.method ==
"POST":
```

```
                    # Prepare the SQL statement to insert
                multiple rows values = '' for i in range(len(skills)): if i
                == 0:
                    values += 'values' values +=
                f"('{skills[i]}',{user_id})" if i !=
                len(skills)-1:
                        values += ','
                    sql = f"insert into skills(name,user_id) {values}"
                    stmt =
                ibm_db.prepare(conn, sql) status =
                ibm_db.execute(stmt)
if status:
                        return jsonify({"message": "Updated skills successfully!"}), 200
                    else:
                        jsonify({"error": "Something went wrong!!"}), 409


                # Handle DELETE
            request if request.method ==
            'DELETE':
                    values = ""
                for i in range(len(skills)):
                values += f"'{skills[i]}'" if
                i != len(skills)-1:
                        values += ','
                    sql = f"delete from skills where name in ({values})"
```

```
                    stmt                    =
ibm_db.prepare(conn,  sql)  status
= ibm_db.execute(stmt) if status:
                        return jsonify({"message": "Deleted skills successfully!"}), 200
                    else:
                        jsonify({"error": "Something went wrong!!"}), 409
```

avatar.svg

```
<svg width="480" height="480" fill="none"
xmlns="http://www.w3.org/2000/svg"><rect opacity=".1" width="480"
height="480" rx="32" fill="#fff"/><path d="M374.308 240c0 71.691-58.117
129.808-129.808 129.808S114.692 311.691 114.692 240 172.809 110.192 244.5
110.192 374.308 168.309 374.308 240z" fill="#F6F6F6" stroke="#fff" stroke-
width="10.385"/><path fill-rule="evenodd" clip-rule="evenodd" d="M244.5
256.2c-21.627 0-64.8 10.854-64.8 32.4v16.2h129.6v-16.2c0- 21.546-43.173-
32.4-64.8-32.4m0-16.2c17.901 0 32.4-14.499 32.4-32.4 0- 17.901-14.499-32.4-
32.4-32.4-17.901 0-32.4 14.499-32.4 32.4 0 17.901 14.499
32.4 32.4 32.4" fill="#35374A" opacity=".3"/></svg>
```

JobCard.jsx

```
import React, { useEffect } from "react";


const JobCard = ({ title, company, description, link }) => {
                    return (
```

```
<div className="max-w-sm flex flex-col rounded overflow-hidden shadow- lg
border-2 border-slate-200">
                    <>
                     <div className="px-6 py-4">
                      <div className="font-bold text-xl">{title}</div>
                      <div className="text mb-2 text-gray-400">{company}</div>
                      <p className="text-ellipsis overflow-hidden text-gray-800 text-sm">
                       {description}
                      </p>
                     </div>
                     <div className="px-6 pt-4 pb-2 mt-auto mb-2">
        <a href={link} target="___blank" className="bg-transparent hover:bg-
          purple-400 text-purple-400 font-
semibold hover:text-white py-2 mb-0 mt-4 px-4 border border-purple-400 hover:border-
transparent rounded"
                      >
                       Apply
                      </a>
                     </div>
                    </>
```

```
                    </div>
                );
        };

export default JobCard;
```

Login.jsx

```
import React, { useContext, useState } from "react";
import { Link, useNavigate } from "react-router-dom";
import { AppContext } from "../context/AppContext";
import { loginUser } from "../proxies/backend_api"; import
{ emailRegex } from "../utils/helper";

const Login = () => {
        const { setShowAlert, setUser } = useContext(AppContext);

        const navigate = useNavigate();

        const [inputs, setInputs] = useState({
```

```
                email:
"", password: "",
                });

                const [error, setErrors] = useState({
                email:
"", password: "",
                });

                const handleChange = ({ target: { name, value } }) => {
                setErrors((prev) => {
                  return { ...prev, [name]: "" };
                });
                setInputs((prev) => ({ ...prev, [name]: value }));
                };

                const checkInputErrors = () => {
```

```
let status = true; if (inputs.email.trim() === ""
|| !emailRegex.test(inputs.email.trim())) {
  setErrors((prev) => {
    return { ...prev, email: "Enter a valid email" };
  });
  status = false;
}

if (inputs.password.trim() === "") {
  setErrors((prev) => {
      return { ...prev, password: "Enter a valid password" };
  });
  status = false;
}

if (inputs.password.trim().length < 6) {
  setErrors((prev) => {
      return { ...prev, password: "Minimum 6 characters" };
```

```
      });
      status = false;
    }
    return status;
  };
  const handleLogin = async () => {
    if (checkInputErrors()) {
      const data = await
loginUser(inputs); if (data.error) {
        setShowAlert({ type: "error", message: data.error, duration:
 3000 }); return;
      }
      setUser(data);
setShowAlert({ type: "success", message:
`Welcome back ${data.name}`, duration:
3000,
      });
      localStorage.setItem("user", JSON.stringify(data));
navigate("/dashboard");
```

```
                    }
                  };
return (
                    <div className="flex flex-col justify-center items-center gap-10 mt-5">
                     <div>
      <button className="bg-base-300 rounded-box flex flex-row justify-evenly items-
center gap-10 px-10 py-5 w-fit mx-auto">
                       <span>Sign in with Github</span>
                       <img src={`github-dark.png`} alt="github" width="14%" />
                      </button>
                      <div className="divider max-w-xs">or</div>
      <form onSubmit={(e) =>
       e.preventDefault()} className="card
       bg-base-300 rounded-box flex flex-col
       justify-center
items-center gap-5 px-10 py-5 w-fit mx-auto"
                      >
                       <div>
```

```
<input value={inputs.email} type="text" name="email"
 placeholder="email" className="input input-bordered
 input-primary w-full" onChange={handleChange}
                />
                {error.email !== "" && (
 <p className="text-sm text-red-500 mt-1 font-medium"> {error.email}
                  </p>
                )}
               </div>
               <div>
<input value={inputs.password} type="password"
 name="password" placeholder="password"
 className="input input-bordered input-primary w-full"
 onChange={handleChange}
                />
                {error.password !== "" && (
              <p className="text-sm text-red-500 mt-1 font-medium">
                  {error.password}
                </p>
```

```
                )}
              </div>
                        <div className="text-center">
<button type="submit"
 onClick={handleLogin} className="btn btn-
 sm btn-primary mb-4"
              >
               Login
              </button>
              <p>
                        Don't have an account?{" "}
               <Link className="text-blue-400" to="/signup">
                Sign up
               </Link>
              </p>
             </div>
            </form>
           </div>
          </div>
```

```
                );
};


export default Login;
```

Navbar.jsx

```
import { useToast } from "@chakra-ui/react"; import
React, { useContext } from "react"; import { Link,
useNavigate } from "react-router-dom"; import
{ AppContext } from "../context/AppContext";


const Navbar = () => {
                const navigate = useNavigate();


                const toast = useToast();


                const { user, setUser, setSkills } = useContext(AppContext);


                const logout = () => {
                  setUser(null);
```

```
                setSkills([]);


                toast({
                  title: "Logged out
successfully!", status: "info",
duration: 3000, isClosable: true,
variant: "left-accent", position:
"top",
                });


                 localStorage.removeItem("user");
                 navigate("/");
               };


               return (
                 <div className="navbar bg-base-100 border-b-2">
                   <div className="flex-1">
```

```
<Link className="btn btn-ghost normal-case
 text-xl" to={user ? "/dashboard" : "/"}

                >
                  F-ing Jobs
                </Link>
               </div>
               {user && (
                <div className="flex-none gap-2">
                  <div className="dropdown dropdown-end">
                    <label tabIndex={0} className="btn btn-ghost btn-circle avatar ">
          <div className="w-10 rounded-full ring ring-opacity-50 ring-purple-
700">
           <img src="https://placeimg.com/80/80/people" /> </div>

                    </label>
         <ul tabIndex={0} className="mt-3 p-2 shadow menu menu-compact
          dropdown-content
bg-base-100 rounded-box w-52"
                    >
                      <li>
```

```
                    <a
                      className="justify-
                between" onClick={() =>
                navigate("/profile")}
                    >
                                                Profile
                    </a>
                   </li>
                   <li>
                <a onClick={logout}>Logout</a>
                    </li>
                  </ul>
                 </div>
                </div>
               )}
              </div>
             );
        };

export default Navbar;
```

SearchBar.jsx

```
import React from "react";

import { BsSearch } from "react-icons/bs";


 const SearchBar = ({ setquery, onClick }) => {

                    const handlesubmit = (e) =>

  { e.preventDefault();

                      onClick();

                    };
                    return (

                      <form className="flex items-center" onSubmit={handlesubmit}>

     <label htmlFor="simple-search" className="sr-only"> Search

                      </label>

                      <div className="relative w-full">

       <div className="flex absolute inset-y-0 left-0 items-center pl-3 pointer- events-
none">

                        <BsSearch />
```

```
                    </div>
        <input onChange={(e) => setquery(e.target.value)} name="search"
          type="text" id="simple-search" className="bg-gray-50 border border-
          gray-300 text-gray-900 text-sm
rounded-lg focus:ring-blue-500 focus:border-blue-500 block w-full pl-10 p-2.5
dark:bg-gray-700 dark:border-gray-600 dark:placeholder-gray-400 dark:text-
white dark:focus:ring-blue-500 dark:focus:border-blue-500"
placeholder="Search" required=""
                    />
                   </div>
      <button type="submit" className="p-2.5 ml-2 text-sm font-medium
        text-white bg-purple-700
rounded-lg border border-purple-700 hover:bg-purple-800 focus:ring-4 focus:outline-none
focus:ring-purple-300"
                    >
                     <BsSearch />
                     <span className="sr-only">Search</span>
                    </button>
                  </form>
                 );
```

```
};

export default SearchBar;
```

Signup.jsx

```
import React, { useContext, useEffect, useState } from "react";
import { useNavigate } from "react-router-dom"; import
{ AppContext } from "../context/AppContext"; import
{ registerUser } from "../proxies/backend_api"; import
{ emailRegex } from "../utils/helper";

const SignUp = () => {
                const { setUser } = useContext(AppContext);

                const navigate = useNavigate();

                const [inputs, setInputs] = useState({
                  name:  "",
   email:                  "",
   phone_number:      "",
```

```
password:               "",
confirm_password: "",

            });


            const [error, setErrors] = useState({
              name:  "",
email:                  "",
phone_number:      "",
password:               "",
confirm_password: "",

            });


            const handleChange = ({ target: { name, value } }) => {
              setErrors((prev) => {
                return { ...prev, [name]: "" };
              });
              setInputs((prev) => ({ ...prev, [name]: value }));
            };
```

```
const checkInputErrors = () => {
  let status = true; if (inputs.email.trim() === ""
|| !emailRegex.test(inputs.email.trim())) {
    setErrors((prev) => {
      return { ...prev, email: "Enter a valid email" };
    });
    status = false;
  }

  if (inputs.name.trim() === "") {
    setErrors((prev) => {
      return { ...prev, name: "Enter a valid name" };
    });
    status = false;
  }

  if (inputs.phone_number.trim() === "") {
    setErrors((prev) => {
```

```
return { ...prev, phone_number: "Enter a valid phone number" };
                });
                status = false;
              }

              if (inputs.confirm_password.trim() === "") {
                setErrors((prev) => {
 return { ...prev, confirm_password: "Enter a valid password" };
                });
                status = false;
              }

              if (inputs.password.trim() === "") {
                setErrors((prev) => {
                  return { ...prev, password: "Enter a valid password" };
                });
                status = false;
              }
```

```
                if (inputs.password.trim().length < 6) {
                  setErrors((prev) => {
                    return { ...prev, password: "Minimum 6 characters" };
                  });
                  status = false;
                }
if (inputs.password.trim() !== inputs.confirm_password.trim()) { setErrors((prev)
 => {
                    return { ...prev, confirmPassword: "Password don't match" };
                  });
                  status = false;
                }
                return status;
              };

              const handleSignUp = async () => {
                if (checkInputErrors()) {
```

```
                const data = await
registerUser(inputs); if (data.error) {
                  toast({
                    title:
   data.error, status:
   "error", duration:
   3000, isClosable: true,
   variant: "left-accent",
   position: "top",
                  });
                  return;
                }
                setUser(
data); toast({
                  title: `Your journey starts here
 ${data.name}`, status: "success", duration:
 3000, isClosable: true,
                  variant: "left-
 accent", position: "top",
```

```
                    });
                    localStorage.setItem("user", JSON.stringify(data));
    navigate("/profile");
                  }
                };


  return ( <>
                    <div>
      <button className="bg-base-300 rounded-box flex flex-row justify-evenly items-center gap-10 px-10 py-5 w-fit mx-auto">
                      <span>Sign in with Github</span>
                      <img src={`github-dark.png`} alt="github" width="14%" />
                    </button>
                    <div className="divider max-w-xs">or</div>
      <div className="card bg-base-300 rounded-box flex flex-col justify-center items-center gap-3 px-10 py-5 w-fit mx-auto">
                      <div>
```

```
<input value={inputs.name} type="text" name="name"
 placeholder="name" className="input input-bordered
 input-primary w-full" onChange={handleChange}
                />
                {error.name !== "" && (
  <p className="text-sm text-red-500 font-medium">{error.name}</p>
                )}
               </div>
               <div>
<input value={inputs.email} type="text" name="email"
 placeholder="email" className="input input-bordered
 input-primary w-full" onChange={handleChange}
                />
                {error.email !== "" && (
  <p className="text-sm text-red-500 font-medium">{error.email}</p>
                )}
               </div>
               <div>
```

```
<input value={inputs.phone_number} type="text"
  name="phone_number" placeholder="phone number"
  className="input input-bordered input-primary w-full"
  onChange={handleChange}

                />
                {error.phone_number !== "" && (
                  <p className="text-sm text-red-500 font-medium">
                    {error.phone_number}
                  </p>
                )}
              </div>
              <div>
<input value={inputs.password} type="password"
  name="password" placeholder="password"
  className="input input-bordered input-primary w-full"
  onChange={handleChange}

                />
                {error.password !== "" && (
                <p className="text-sm text-red-500 font-medium">
```

```
                    {error.password}
                  </p>
                )}
              </div>
              <div>
<input value={inputs.confirm_password}
 type="password" name="confirm_password"
 placeholder="confirm password" className="input
 input-bordered input-primary w-full"
 onChange={handleChange}
                />
                {error.confirm_password !== "" && (
                <p className="text-sm text-red-500 font-medium">
                  {error.confirm_password}
                </p>
                )}
              </div>
                        <div className="text-center">
```

```
                <button onClick={handleSignUp}
                  className="btn btn-sm btn-primary mb-4"
                                >
                                  Sign Up
                                </button>
                              </div>
                            </div>
                          </div>
                        </>
                      );
                };

export default SignUp;
```

Skill.jsx

```
import React, { useEffect, useState } from "react";


const Skill = ({ skill, setSelectedSkills, disabled }) => {
  const [isSelected, setIsSelected] = useState(false);
```

```
                    useEffect(() => {
                     if (isSelected) {
                       setSelectedSkills((prev) => [...prev, skill]);
                     } else {
                       setSelectedSkills((prev) => prev.filter((item) => item !== skill));
                     }
                    }, [isSelected]);

return (
        <li className="hover:text-white flex gap-1 items-center justify-between p-1 rounded-
      sm">
                          {skill}
          <button disabled={disabled} onClick={() =>
           setIsSelected(!isSelected)}
           className={`cursor-pointer border-2 ${
             !isSelected ? "border-green-500" : "border-red-400" }
           p-1 rounded-lg`}
                          >
                            {!isSelected ? "Add" : "Remove"}
```

```
                    </button>
                  </li>
                );
};

export default Skill;
```

AppContext.jsx

```
import { createContext, useEffect, useState } from "react"; import
{ useNavigate } from "react-router-dom";

export const AppContext = createContext();
export const AppProvider = ({ children }) => {
                const navigate = useNavigate();

                const [skills, setSkills] = useState([]);

                const [user, setUser] = useState(null);
```

```
  useEffect(() => { let temp_user =
    JSON.parse(localStorage.getItem("user")); if (!temp_user) {
                        navigate("/");
                       } else {
                        setUser(temp_user);
                       }
                      }, []);

                      return (
    <AppContext.Provider value={{ user, setUser, skills, setSkills }}>
      {children}
                        </AppContext.Provider>
                      );
};
```

backend_api.js

```
import { BASE_URL } from "../utils/helper";
```

```
export const loginUser = async (inputs) => { try
 {
                    const response = await fetch(`${BASE_URL}/auth/login`, {
                     method:
    "POST", body:
    JSON.stringify(inputs),
    headers: {
                       "Content-Type": "application/json",
                     },
                    });
                    const data = await
   response.json(); return data;
 } catch (error) { console.error(error);
                  }
};


export const registerUser = async (inputs) => { try
 {
```

```
                const response = await fetch(`${BASE_URL}/auth/signup`, {
                  method:
    "POST", body:
    JSON.stringify(inputs),
    headers: {
                    "Content-Type": "application/json",
                  },
                });
                const data = await
   response.json(); return data;
  } catch (error) { console.error(error);
                }
};
```

Profile.jsx import

```
{
                Progress,
                SkeletonCircle,
```

```
                Skele
  tonText, Spinner,
  useToast,

} from "@chakra-ui/react"; import React, { useContext,
useEffect, useState } from "react"; import { AiOutlineClose }
from "react-icons/ai"; import { BsLinkedin } from "react-
icons/bs"; import { GoMarkGithub } from "react-icons/go";
import { MdDeleteForever } from "react-icons/md"; import
{ RiEdit2Fill } from "react-icons/ri"; import { TfiTwitterAlt }
from "react-icons/tfi"; import { VscAdd } from "react-
icons/vsc"; import { AppContext } from
"../context/AppContext"; import {

                getUserSkills,
  removeUserSkills,
  saveUserSkills,
  updateUserDetails,

} from "../proxies/backend_api";


const Profile = () => {
```

```
    const toast = useToast();

    const { user, setUser, skills, setSkills } = useContext(AppContext);
    const [addSkill, setAddSkill] = useState("");

    const [newSkills, setNewSkills] = useState([]);

    const [removedSkills, setRemovedSkills] = useState([]);

    const [isEditingEnabled, setIsEditingEnabled] = useState(false);

    const [loading, setLoading] = useState(false);

    const [userInfo, setUserInfo] = useState({
      name: "",
phone_number: "",
    });

    const handleUserInfoChange = ({ target: { name, value } }) => {
```

```
                    setUserInfo((prev) => ({ ...prev, [name]: value }));
                  };


const changeSkills = () => { if
 (
                      addSkill !== "" &&
   !skills.find((item) => item.toLowerCase() === addSkill.toLowerCase())
                    ) {
                      setNewSkills((prev) => [...prev, addSkill.trim()]);
  setSkills((prev) => [...prev, addSkill.trim()]);
                    }
                    setAddSkill("");
                  };

                  const removeSkills = (skill_name) => {
                    setRemovedSkills((prev) => [...prev, skill_name]);

                    setSkills((prev) => prev.filter((item) => item !== skill_name));
```

```
    setNewSkills((prev) => prev.filter((item) => item !== skill_name));
  };

  const updateSkills = async () => {
    setLoading(true);

    let skillsAdded = false,
      skillsRemoved = false;

    if (newSkills.length !== 0) {
      skillsAdded = await saveUserSkills(newSkills, user.token);
    }

    if (removeSkills.length !== 0) {
skillsRemoved = await removeUserSkills(removedSkills, user.token);
    }

    if (skillsAdded || skillsRemoved) {
      toast({
```

```
                    title:
"Profile          Updated!",
status:  "info",  duration:
3000, isClosable: true,
                    variant: "left-
accent", position: "top",
                  });
                 }


                  setNewSkills([]);


                  setRemovedSkills([]);


                  setLoading(false);
                };


                const updateUserInfo = async () => {
                  setLoading(true);
```

```
            const data = await updateUserDetails(userInfo, user.token);


            if (data) {
              setUser((prev) => {
                prev = { ...prev, name: data.name, phone_number:
data.phone_number };

                localStorage.setItem("user", JSON.stringify(prev));

                return prev;
              });

              toast({
                title: "Profile
Updated!", status: "info",
                duration:
3000, isClosable: true,
variant: "left-accent",
position: "top",
```

```
                    });
                   }
setLoading(false);


                    setIsEditingEnabled(false);
                  };


useEffect(() => { if
  (user) {
    (async () => { setLoading(true);

                     let data = await getUserSkills(user?.token);

                                    if (data) setSkills(data);

                     setLoading(false);
                    })();
```

```
                    setUserInfo({
                      name: user.name,
        phone_number: user.phone_number,
                    });
                  }
                }, [user]);

                return (
                  <>
      {loading && <Progress size="xs" isIndeterminate colorScheme={"purple"}
/>}
                    <div className="my-5 mx-10">
       <div className="border-2 border-blue-100 w-full h-fit rounded-xl p-5 flex flex-col
gap-3">
                      <div className="flex justify-between w-full min-h-[25vh]">
                        <div className="flex flex-col justify-between">
          <h1 className="md:text-2xl text-xl font-medium flex items-center gap-4">
                          Your Profile{" "}
                          <button>
```

```
                    {isEditingEnabled ? (
                      <AiOutlineClose color="#ff8977"
            onClick={() => setIsEditingEnabled(!isEditingEnabled)}
            />
                    ) : (
                      <RiEdit2Fill color="#4506cb" onClick={()
            => setIsEditingEnabled(!isEditingEnabled)} />
                    )}
                   </button>
                  </h1>
                  <div className="flex flex-col gap-3">
                   {isEditingEnabled ? (
        <>
                      <input
        name="name"
        value={userInfo.name}
              className="input input-bordered w-full input-xs p-3 text-lg input-
primary"
```

```
                type="text"
                placeholder="name"
                onChange={handleUserInfoChange}
                />
                <input
disabled
                value={user?.email}
                 className="input input-bordered w-full input-xs p-3 text-lg input-
              primary"
                type="text"
                placeholder="name"
                />
                <input
                name="phone_number"
value={userInfo.phone_number}
                 className="input input-bordered w-full input-xs p-3 text-lg input-
              primary"
```

```
                    type="number"
  placeholder="phone number"
  onChange={handleUserInfoChange}
                    />
<button className="btn btn-xs btn-outline btn-
  primary" onClick={updateUserInfo}
                    >
                     Update
                    </button>
                   </>
                  ) : (
                   <>
                    <h2 className="md:text-2xl xl:text-2xl sm:text-xl">
                     {user?.name}
                    </h2>
                    <p className="md:text-xl sm:text-md text-gray-700">
                     {user?.email}
                    </p>
<span className="text-gray-700">{user?.phone_number}</span> </>
```

```
                )}
              </div>
            </div>
            <div className="flex flex-col justify-end w-fit gap-4">
              <img src="avatar.webp" alt="profile"
className="md:w-36 w-20 rounded-md object-contain"
/>
            </div>
          </div>
          <div className="divider my-2"></div>
          <div className="flex flex-col">
            <div className="flex justify-between gap-2 flex-col">
              <h4 className="text-xl">Skills</h4>
<form  className="flex  gap-5  items-
 center"        onSubmit={(e)        =>
 e.preventDefault()}
              >
 <input autoComplete="off" value={addSkill} type="text"
  name="addSkill" placeholder="Add skills" onChange={(e) =>
```

```
setAddSkill(e.target.value)} className="input input-bordered w-
full input-primary max-w-xl
input-sm"
/>

<button className="hover:rotate-90 transition-all"
onClick={changeSkills}
>
<VscAdd size={20} />
</button>
</form>
{loading ? (
<Spinner thickness="3px"
speed="0.65s"
emptyColor="gray.200"
color="blue.500"
size="md"
className="m-3"
/>
```

```
                ) : (
                  <ul className="flex gap-2 flex-wrap">
                    {skills?.map((addSkill, ind) => (
                      <li
    className="bg-indigo-100 rounded p-2 flex gap-2 items-center"
   key={ind} >
                        {addSkill}
    <MdDeleteForever color="#ff8977"
      onClick={() => removeSkills(addSkill)}
      size={20}
                        />
                      </li>
                    ))}
                  </ul>
)}

<button className="btn btn-sm w-fit btn-
  primary" type="button"
  onClick={updateSkills}
```

```
                        >
                          Save
                        </button>
                      </div>
                      <div className="divider my-2"></div>
                      <div className="flex justify-between gap-2 flex-col">
                        <h4 className="text-xl">Resume/Portfolio</h4>
                        <div className="flex gap-5">
            <input className="input input-bordered w-full input-primary
              max-w-xl
input-sm"
                          type="text"
              placeholder="paste the link"
                        />
            <button className="btn btn-primary btn-sm">update</button> </div>
                      </div>
                      <div className="divider my-2"></div>
                      <div className="flex gap-2 flex-col">
                        <h3 className="text-xl">Socials</h3>
```

```
                    <div className="flex flex-col gap-2">
                     <div className="flex gap-5 items-center">
                      <GoMarkGithub size={20} />
          <input type="text" placeholder="paste the link" className="border-
2 border-gray-300 rounded-md px-3 my-1 max- w-md"
                      />
                     </div>
                     <div className="flex gap-5 items-center">
                      <BsLinkedin size={20} />
        <input type="text"
          placeholder="p
         aste the link"
          className="bo
         rder-2 border-
         gray-300
         rounded-md px-3
         my-1 max- w-
         md"
      />
```

```
                    </div>
                    <div className="flex gap-5 items-center">
                    <TfiTwitterAlt size={20} />
                    <input
type="text"
                    placeholder="paste the link"     className="border-2 border-gray-300
rounded-md px-3 my-1 max- w-md"
                                        />
                                        </div>
                       <button className="btn btn-primary btn-sm max-w-fit"> save
                                        </button>
                                       </div>
                                      </div>
                                     </div>
                                    </div>
                                   </div>
                                  </>
                                 );
              };
```

```
export default Profile;
```

Dashboard.jsx

```
                import {
                 Progress,
                 SkeletonCircle,
                 SkeletonText,
                 Spinner,
} from "@chakra-ui/react"; import axios from "axios"; import
React, { useContext, useEffect, useState } from "react"; import
JobCard from "../components/JobCard"; import SearchBar
from "../components/SearchBar"; import Skill from
"../components/Skill"; import { AppContext } from
"../context/AppContext"; import { getUserSkills } from
"../proxies/backend_api";


const Dashboard = () => {
                 const { user, skills, setSkills } = useContext(AppContext);
```

```
                const [selectedSkills, setSelectedSkills] = useState([]);

                const [skillsLoading, setSkillsLoading] = useState(false);

                const [jobsLoading, setJobsLoading] = useState(false);

                const [query, setquery] = useState("");

                const [posts, setPosts] = useState(null);


                const id = import.meta.env.VITE_ADZUNA_API_ID;

                const key = import.meta.env.VITE_ADZUNA_API_KEY;

const baseURL_with_skills =
        `http://api.adzuna.com/v1/api/jobs/in/search/1?app_id=${id}&app_key=${key }&results_
        per_page=15&what=${query}&what_and=${selectedSkills.join(
                  " "
                )}&&content-type=application/json`;
```

```
const baseURL =
`http://api.adzuna.com/v1/api/jobs/in/search/1?app_id=${id}&app_key=${key
}&results_per_page=15&what=${query}&content-type=application/json`;


const searchJobsFromQuery = async () => {
 setJobsLoading(true);

 if (query !== "" || !posts) {
  const { data } = await axios.get(baseURL);
setPosts(data.results);
 }


 setJobsLoading(false);
};


const searchWithSkills = async () => {
 setJobsLoading(true);

 const { data } = await axios.get(baseURL_with_skills);
```

```
                setPosts(data.results);

                setJobsLoading(false);
              };


useEffect(() => { if
  (user) {
    (async () => { setSkillsLoading(true);
      setSkills(await getUserSkills(user.token));
      setSkillsLoading(false);

                  })();
                }
              }, [user]);


              useEffect(() => {
                searchWithSkills();
              }, [selectedSkills]);
```

```
useEffect(() => {
  searchJobsFromQuery();
}, []);


return (
  <>
    {(jobsLoading || skillsLoading) && (
<Progress size="xs" isIndeterminate colorScheme={"purple"} />
    )}
    <div className="flex gap-10 m-10">
<div className="hidden lg:flex bg-purple-600 w-1/5 p-5 h-3/6 rounded-lg text-center flex-col gap-4">
 <div className="text-2xl text-white capitalize font-extrabold"> Your
  skills
    </div>
    {skillsLoading ? (
<Spinner className="self-
  center my-5" thickness="3px"
  speed="0.65s"
```

```
emptyColor="gray.200"
color="black.100" size="lg"

                />
              ) : (
                <ul className="list-none text-gray-200 flex flex-col gap-2">
                  {skills?.length === 0 ? (
                    <p className="text-gray-300">
  Skills you add in the profile section will appear here!! </p>

                  ) : (
                    skills.map((skill, ind) => (
  <Skill skill={skill} key={ind}
   setSelectedSkills={setSelectedSkills}
   disabled={skillsLoading}

                      />
                    ))
                  )}
                </ul>
              )}
              <p className="text-white text-sm">
```

```
(Include your skills in the search result) </p>

                    </div>


                    <div className="mx-auto min-w-[80%] ">
                     <SearchBar setquery={setquery} onClick={searchJobsFromQuery} />
                     {query === "" ? (
                      <h2 className="text-2xl mt-5">Recommended Jobs</h2>
                     ) : (
                      <h2 className="text-2xl mt-5">
                       Search for keywords {query}
                       {filterUsingSkills && `,${skills.join(",")}`}
                      </h2>
                     )}


 <div className="mt-5 grid grid-cols-1 lg:grid-cols-3 md:grid-cols-2 gap-
5">
                       {jobsLoading
                        ? [...new Array(10)].map((_, ind) => (
```

```
                <div key={ind}>
                <SkeletonCircle size="8" className="mb-5" />
 <SkeletonText mt="4"
  noOfLines={8}
  spacing="4"
  color={"red"}
                  />
                </div>
               ))
              : posts?.map((post, ind) => (
<JobCard key={ind}
 title={post.title}
                  company={post.company.display_name}
 description={post.description} link={post.redirect_url}
                />
               ))}
           </div>
          </div>
```

```
            </div>
          </>
        );
};

export default Dashboard;
```

Auth.jsx

```
import { Tab, TabList, TabPanel, TabPanels, Tabs } from "@chakra-ui/react";
import React, { useContext, useEffect } from "react"; import { useNavigate }
from "react-router-dom"; import Login from "../components/Login"; import
SignUp from "../components/Signup";
import { AppContext } from "../context/AppContext";

const Auth = () => {
        const navigate = useNavigate();

        const { user } = useContext(AppContext);
```

```
    useEffect(() => {
      if (user) navigate("dashboard");
    }, []);

    return (
<div className="flex flex-col justify-center items-center gap-10 mt-5">
        <Tabs isFitted variant="line" colorScheme={"purple"}>
      <TabList mb="1em">
        <Tab>Login</Tab>
        <Tab>SignUp</Tab>
      </TabList>
      <TabPanels>
        <TabPanel>
          <Login />
        </TabPanel>
        <TabPanel>
          <SignUp />
        </TabPanel>
      </TabPanels>
```

```
                    </Tabs>
                  </div>
                );
};

export default Auth;
```

helper.js

```
export const emailRegex = /^[\w-.]+@([\w-]+\.)+[\w-]{2,4}$/;

export const urlRegex =
                /((([A-Za-z]{3,9}:(?:\/\/)?)(?:[-;:&=\+\$,\w]+@)?[A-Za-z0-9.-]+(:[0-9]+)?|(?:www.|[-;:&=\+\$,\w]+@)[A-Za-z0-9.-]+)((?:\/[\+~%\/.\w-_]*)?\??(?:[-\+=&;%@.\w_]*)#?(?:[\w]*))?)/;

export const BASE_URL = import.meta.env.VITE_BACKEND_ENDPOINT;
```

App.jsx

```
import { useEffect } from "react"; import { HashRouter, Route,
Routes } from "react-router-dom"; import Navbar from
"./components/Navbar"; import { AppProvider } from
"./context/AppContext"; import Auth from "./screens/Auth";
import Dashboard from "./screens/Dashboard"; import Profile
from "./screens/Profile";


function App() {
                    useEffect(() => {
   window.watsonAssistantChatOptions = { integrationID:
import.meta.env.VITE_WATSON_INTEGRATION_ID, // The ID of this
integration.
                        region: import.meta.env.VITE_WATSON_REGION, // The region your
integration is hosted in.
     serviceInstanceID:  import.meta.env.VITE_WATSON_SERVICE_INSTANCE_ID,
//  The  ID  of  your  service  instance.  onLoad:  function  (instance)
{ instance.render();

                      },
                    };
```

```
            setTimeout(function () {
              const t =
document.createElement("script"); t.src =
                "https://web-chat.global.assistant.watson.appdomain.cloud/versions/" +
                (window.watsonAssistantChatOptions.clientVersion || "latest") +
 "/WatsonAssistantChatEntry.js"; document.head.appendChild(t);
            });
          }, []);
          return (
            <HashRouter>
              <AppProvider>
                <Navbar />
                <Routes>
                  <Route path="/" element={<Auth />} />
                  <Route path="/dashboard" element={<Dashboard />} />
                  <Route path="/profile" element={<Profile />} />
                </Routes>
              </AppProvider>
```

```
        </HashRouter>
      );
}

export default App;
```

main.jsx

```
import { ChakraProvider } from "@chakra-ui/react";
import React from "react"; import ReactDOM from
"react-dom/client"; import App from "./App";
import "./index.css";

ReactDOM.createRoot(document.getElementById("root")).render(
      <React.StrictMode>
        <ChakraProvider>
          <App />
        </ChakraProvider>
      </React.StrictMode>
```

);

Index.css

```
@import
url("https://fonts.googleapis.com/css2?family=Ubuntu&display=swap");


@tailwind base;

@tailwind components;

@tailwind utilities;

:root {
                font-family: Inter, Avenir, Helvetica,
 Arial, sans-serif; font-size: 16px; line-height: 24px;
 font-weight: 400;


                color-scheme: light;

                /* color: rgba(255, 255, 255, 0.87);

 background-color: #242424; */
```

```
                font-synthesis:       none;
  text-rendering:   optimizeLegibility;   -
  webkit-font-smoothing: antialiased; -
  moz-osx-font-smoothing: grayscale;
                -webkit-text-size-adjust: 100%;
}

* { margin: 0; padding: 0; font-
  family: "Ubuntu", sans-serif;
}

body::-webkit-scrollbar
  { width: 5px; background-
  color: none; border-radius:
  20px;
}

body::-webkit-scrollbar-thumb {
```

```
                background-color: #adadad;
  border-radius: 20px;
}

body {
                max-height: 100vh;
}
```

Deployment.yaml

```
## Enter your <docker_username> before use

apiVersion: v1
kind: Service
metadata: name:
test labels:
                  app: test
```

```
spec: type:
  NodePort ports:
    - port: 5000 name:
      http      nodePort:
      30080
                    selector:
                      app: app
---
apiVersion: extensions/v1beta1 kind:
Deployment
metadata: name:
  test
spec: replicas:
  1 template:
  metadata:
  labels:
                                                app: app
    spec: containers:
```

- name: ibm_project ports:

- containerPort: 5000 imagePullSecrets:

- name: regcred

main.py

```
from backend import create_app

                                        app = create_app()

if__name____== '__main_':
                    from waitress import
   serve serve(app, port=5000)
```

package.json

```
{
                    "name": "react-flask-app",
                    "private": true,
                    "version": "0.0.0",
                    "type": "module",
```

```
"scripts": {
"start": "vite",
  "build": "vite build",
  "preview": "vite preview",
  "server": "cd backend && flask --debug run"
},
"dependencies": {
  "axios": "^1.1.3",
  "daisyui": "^2.33.0",
  "react": "^18.2.0",
  "react-dom": "^18.2.0",
  "react-icons": "^4.6.0",
  "react-router-dom": "^6.4.2"
},
"devDependencies": {
  "@types/react": "^18.0.17",
  "@types/react-dom": "^18.0.6",
  "@vitejs/plugin-react": "^2.1.0",
  "autoprefixer": "^10.4.12",
```

```
    "postcss": "^8.4.18",
    "tailwindcss": "^3.1.8",
    "vite": "^3.1.0"
  } }
```

postcss.config.cjs

```
module.exports = {
  plugins:
  { tailwindcss: {},
  autoprefixer: {},
  },
}
```

tailwind.config.cjs

```
/** @type {import('tailwindcss').Config} */ module.exports
= {
  darkMode: "class", content:
  ["./index.html", "./src/**/*.{js,ts,jsx,tsx}"], theme: {
    extend: {},
  },
```

```
                    plugins:
  [require("daisyui")], daisyui: {
                     themes: ["light"],
                    },
};
```

vite.config.js

```
import react from "@vitejs/plugin-react";
import { defineConfig } from "vite";
// https://vitejs.dev/config/ export
default defineConfig({ plugins:
[react()],
                    server: {
                     por
   t: 3000, cors:
   false,
                    },
});
```

Dockerfile

```
# Build step #1: build the React front end
FROM node:16-alpine as react-builder
WORKDIR /app
ENV PATH /app/node_modules/.bin:$PATH
COPY package.json ./
COPY ./src ./src
COPY ./public ./public
COPY ./index.html ./vite.config.js ./postcss.config.cjs ./tailwind.config.cjs ./.env
./
RUN npm install
RUN npm run build

# Build step #2: build the API with the client as static files
FROM python:3.10
WORKDIR /app
COPY --from=react-builder /app/dist ./dist
COPY main.py ./main.py
```

```
RUN mkdir ./backend

COPY backend/ ./backend/

RUN pip install -r ./backend/requirements.txt
EXPOSE 5000

 ENTRYPOINT ["python","main.py"]
```